domen which called for laparotomy in the hospitals. There was a much larger proportion than might have been expected of aneurysms and especially of nerve-lesions of various kinds. Direct rifle-bullet wounds were often almost absolutely innocuous, and wounds of the head as a striking feature were followed with extreme rarity by serious deformities of the face. Amputations were rare, less than 1 per cent. of all cases treated in the hospitals requiring it, while trephining was relatively much more frequent. The results of a second operation under chloroform of wounded soldiers whose wounds had become infected were always very discouraging.

Summing up the results, Laurent says that during the single month of July, 1913, 150,000 men were killed and wounded on both sides, and of these more than half, at least 80,000, fell on the banks of the Bregalnitsa in the six days from June 30 to July 5. He quotes with approval the remarks of a commentator on these figures who says:

"If you put a zero behind each of these numbers you will have some idea of the effective strength of the armies and the losses that must be presumed to take place in any war which would to-morrow set the armed forces of any two first-class powers of Europe on the fighting line before each other. There would be not less than 1,500,000 dead and wounded in the course of the first month."

WAR AND ITS ROMANCE.

We are all so stunned at the happening of the impossible, the being forced to think of the unthinkable, that it is difficult even to imagine things in their proper proportions. Hell has certainly grabbed all Europe for its very own. Psychologically, it is of sad enough interest to see how quickly peaceful people, going through life in the most friendly relations, suddenly become crazed with the lust for blood; for killing; for murder by wholesale. It is also of interest, and of profound significance, that millions of men can be moved about a large area, cared for, fed, guided, herded hither and yon, and not a word of their actual location, movements or doings reach the knowledge of the outside world except such fragments as the leaders of these millions permit to escape. It would have seemed quite impossible so thoroughly and completely to bottle up all the avenues of escape for news; but it was done and is being done. The control of the masses by the few seems to be absolute; but will it always last?

THE EXPOSITION AND THE WAR.

The Directors of the Panama-Pacific Exposition have announced most positively that the Exposition will open on the date scheduled and that there is not the slightest question of postponing it on account of the European war. They state that nearly all the exhibits which had been promised will be in place on time and that the success of the Exposition is in no way a matter of doubt. It is quite probable that, if the war continues, a great many people will come out to see the Exposition and travel through the western part of their own country, who might otherwise have gone to Europe.

ORIGINAL ARTICLES

THE INTIMATE RELATION OF ORTHOPEDIC SURGERY TO NEUROLOGY.

By H. W. WRIGHT, M. D., Santa Barbara.

The stimulus to the production of this paper comes from a recent experience with several interesting and instructive cases which came under the author's observation in one of the busiest orthopedic dispensaries. Neurology and orthopedic surgery have always had much in common, but as time goes on and neurological diagnosis becomes more exact the communal interest of the two branches of medicine becomes more important. In the dispensary where the writer had the privilege of working hardly a week passes without a patient who needs a thorough neurological examination dropping in, and judging from the number of cases referred from a nearby neurological hospital, orthopedic conditions are as frequently met with there. Such an experience cannot fail to convince one of the necessity of the orthopedist having a thorough knowledge of organic and functional neurology and a habit of making a careful and complete neurological examination in every obscure case.

It will not do to take the attitude that any patient showing signs of organic lesion of the nervous system belongs to the neurological specialist, and therefore ceases to be interesting. Many such patients need orthopedic treatment, and the particular treatment depends very much upon the neurological examination and must be interpreted by the orthopedist himself in order to treat the patient effectively. Thus might time and suffering be spared to many patients who are now shifted from one specialist to another, because neither has sufficient interest in, or knowledge of, the other's branch of work to make a complete examination. The patient does, indeed, need specialistic treatment; but, first of all, a correct diagnosis is essential and a correct diagnosis is most surely obtained by the man whose field of vision is not limited to one organ or region of the human anatomy. We have in our large cities unlimited clinical material and it is only the lack of co-operation between the different clinics, hospitals and medical societies that prevents the modern specialist from being a well rounded man so far as diagnosis is concerned.

Perhaps there is no disease in which more confusion of neurological with orthopedic symptoms and indications for treatment can exist than hysteria. This fact has nowhere been so graphically illustrated as in the monograph by Dr. Newton Shaffer, entitled "Hysterical Joint Affections," and published in 1880. Numerous cases are therein detailed and show that the author had a good grasp upon neurology, as well as upon his own specialty.

Hysteria may simulate any disease, and here

even the expert may be fooled. Hysterical joint symptoms and contractures if treated orthopedically are quite apt to be aggravated, to become permanent or indefinitely prolonged because the treatment has increased the attention of the patient to the part involved and has done nothing to correct the neuropsychic functional defect which is the cause of the symptoms.

Such diseases as syringo-myelia, disseminated sclerosis, Freidrich's ataxia, chronic exudative inflammations of the spinal cord membranes and progressive muscular atrophy come to orthopedic dispensaries because of the motor disability accompanying these lesions. If a thorough neurological examination is not made intelligent treatment is impossible, and intelligent consultation with the proper specialist unlikely. Spinal cord tumor is not an infrequent disease at all ages and can often be mistaken for incipient Potts, neuritis, sciatica or "spastic paralysis" by the unpracticed eye.

In the course of a year a large number of little sufferers from Erb's type of birth palsy pass through an orthopedic hospital or dispensary. The majority of them do not recover either spontaneously or after many months of electricity and massage, yet nothing more is done for them. From a surgical standpoint they are being quite neglected by the orthopedic surgeon, and why? Because he is not sufficiently prepared either in his knowledge of the anatomy of the brachial plexus or of the technic of its surgery. These cases are numerous enough to go round between the general surgeon and the orthopedist, and generally come to the latter first anyway.

On the other hand, taking a view from the other side, many orthopedic conditions cause symptoms in the nervous system, which taken by themselves and observed by one entirely interested in neurology can simulate a serious organic disorder of the central nervous system. Sciatica is frequently diagnosed when the sciatic symptom is an indication of hip-joint or sacroiliac disease. Most distressing sequelae of peripheral neuritis, hemiplegia and paraplegia in their various forms are seen by the orthopedist because the neurologist has not been acquainted with the mechanical measures indicated to prevent deformity in any affection involving muscles and joints.

There are also many obscure functional disorders in the "neurasthenic" group, which depend largely upon static defects, especially the condition described and well elucidated by Hibbs in his article on "muscle-bound foot."

To illustrate the theme of this paper, the following cases are submitted. For this privilege I am indebted to Dr. R. H. Hibbs of the New York Orthopedic Hospital and Dispensary:

Case I. A girl of 12 years was brought to the dispensary because of a gradually increasing weakness of the muscles of both lower and upper extremities. This began shortly after being frightened and exposed to cold and wetting during a fire in her home. Examination showed pronounced atrophy in arms, with almost complete paralysis in all the limbs. There was increase of the right knee jerk, double ankle clonus and Babinski reflex. No sensory disturbance nor any sign referable to the cranial nerves. An organic lesion of the cord was diagnosed and the patient referred to a neurological hospital. There she was operated upon and an extra-dural tumor removed at the level of the eighth cervical and first dorsal segments. Patient has gradually improved and two months after operation was able to walk. Permanent paralysis of the upper extremities was doubtless prevented in this case by early operation.

Case 2. A boy of 4½ years had had pain in back of neck for five months. Was treated for rheumatism. Physician referred the case to a dispensary because he suspected cervical Pott's disease with paraplegia, the gait having gradually become feebler and fever having been observed.

Examination showed very unstable station and gait, absent knee jerks, sluggishly reacting pupils, nystagmus; Babinski on right side and marked ataxia in hands.

After being referred to a neurologist an examination of the eye grounds revealed papilloedema on each side. A diagnosis of cerebellar tumor was made and the lateral ventricles were aspirated through the corpus collosum, eight ounces of fluid removed. The patient improved for a time, but soon relapsed and remains unimproved.

Case 3. A girl of 13 years complained of headache for two years. Was treated for eye strain by special glasses. Headache improved, but eyesight became more defective. She came to the orthopedic dispensary because of feebleness and uncertainty in gait. Examination showed increased knee jerks and hemianopsia. After being referred to a neurological hospital optic atrophy was found and a diagnosis of tumor at the base of brain was made. This was not considered removable and therefore the lateral ventricles were punctured through the corpus collosum. The vision rapidly improved thereafter and the patient's gait likewise became better. She was discharged much improved, but three months later vision became again more dim and this condition is progressing.

Case 4. Spinal cord tumor, simulating spondylitis. A girl of 14 years after an attack of measles two years previously gradually became stoop-shouldered and rigid in the dorsal spine. She also occasionally had noticed a numbness in left foot and fingers with tendency to involuntary contracture of the fingers of left hand. Later pain down the inner side of left arm appeared. Examination of spine showed a smoothly rounded kyphos, involving the upper half of dorsal spine, with rigidity in same region; also a slight lateral curve in the same region.

All tendon reflexes were exaggerated; there was double Babinski and ankle clonus. There was also weakness of the muscles of left foot and hand and slight atrophy of the left calf muscle and the thenar muscles of left hand, together with diminished sensation to touch, pain and temperature in left arm and hand and in left leg and foot; pain down left arm was frequently complained of, but was not constant. No symptoms referable to the cranial nerves; abdominal reflexes absent. There was a fine tremor in left hand on extension. The patient became rather rapidly more feeble in her limbs and a diagnosis of intro-medullary cord tumor was made by the neurological consultant. After being transferred to the neurological hospital the patient developed mastoiditis and was operated upon for this. Soon her cord symptoms began to improve and a spinal brace was applied. With this she was soon able to walk about comfortably. Four months later she was found to have exaggerated reflexes and double Babinski and ankle clonus, but less disturbance of sensation than formerly; however, there was still a diminution to pain, temperature and touch in left lower extremity. Her feet were spastic, but there

was no noticeable atrophy anywhere. She had no pain and was up and about every day, walking with a cane and wearing a spinal brace. This patient was now considered as a case of chronic osteo-arthritis of the spine and her spinal cord symptoms were thought to be due to pressure of bony growth on the nerve roots and cords. X-ray showed only a slight thickening of bone lateral to the bodies of vertebrae. She tires easily, and after being about a few days will take to bed again for a time to recuperate and later walk about better. On August 5th and 12th she was prescribed thymus gland grains X, and this treatment was continued for two months, but patient gradually became more incapacitated and she was again referred to the neurological hospital, where this time a diagnosis of cord tumor was made. Primary operation of laminectomy and incision of dura was done and patient improved. She is now awaiting the extrusion of a probable intra-spinal tumor.

Case 5. A case of hysteria resembling focal disease of the spinal cord. A girl of 18 years. No history of nervous or mental disorder in antecedents. Her brother is of neurotic type, a stutterer and poorly developed. The girl was always considered "nervous" and self-conscious, is subject to dreams and fainting spells, but has given no other psychic evidence of hysterical makeup. Shortly after an operation for appendicitis she was thrown from the steps of a trolley car, striking her right knee, and although there was no serious injury she remained in bed a few days. Since then her right knee had been painful and she kept it flexed, walking upon her toes, and her general nervousness had increased. On admission there was a spastic contracture of the flexors of the right knee joint and of the calf muscle, which could be overcome by persistent manipulation. This caused some, but not unbearable, pain. No pain complained of when at rest. No atrophy.

The right knee reflex was overactive; there was pseudo ankle clonus; no Babinski. Lateral nystagmus was present in each eye. There was a very coarse type of intention tremor in the right hand; none in the left. This tremor varied in degree and was much less when patient was unconscious of observations. There was anesthesia in right foot and leg; later on, in left. This anesthesia shifted about from time to time, but was found constant in one area of right foot; its distribution did not correspond exactly with any segment of the cord. In applying "Hoover's test," i. e., having the patient flat on her back and asking her to raise the normal leg with knee extended, the contractions in the other knee disappeared. Blood and urine were normal. The patient retained her urine for long periods and secreted very little, catheterization produced only four ounces after 48 hours. After discontinuing catheterizing she voided naturally. Mentally she was cheerful; she often laughed immoderately. She remained under observation six weeks without much change in the above symptoms. The left tendon Achilles was lengthened, but this caused no change in patient's knee contracture or gait. At times, however, her gait was normal, but never when she was conscious of observation. Toward the end of her residence in the hospital she was allowed to go out alone for short walks. She fell once or twice, but sustained no iniury. She was also given thyroid and thymus gland for three weeks in full dosage without any benefit. Finally the nature of the patient's disorder was frankly explained to her in simple language, which she seemed to comprehend and also to be quite relieved by the explanation. She was urged to leave the hospital and keep away from dispensaries and doctors. She had been to several before admission here. She was advised to try to lead a normal active life in spite of the present symptoms and was assured that these would gradually disappear.

THE TREATMENT OF GASTRIC AND DUODENAL ULCER.*

By RENÉ BINE, M. D., and EMILE SCHMOLL, M. D., San Francisco.

Ever since pathologists began to insist upon the universal prevalence of tuberculosis, clinicians have tried to perfect their methods of diagnosis of this disease in order to recognize it in its incipiency. This has necessarily resulted in an increase of clinically diagnosed cases, many of which are labeled "old," "healed," or "latent"; others "active," "progressive," etc. Similar conditions apply to the disease now under discussion. It is less than 100 years since pathologists began to clearly differentiate between ulcers and cancers of the gastro-duodenal region, and ever since then anatomists have shown that active ulcers or cicatrices are found in 3% to 5% of all autopsies. With the advances of modern surgery and an increasing number of laparotomies, ulcers have been demonstrated and found to explain the symptoms in many otherwise obscure cases. This has stimulated physicians to more accurate observation and study of gastro-intestinal patients so that we now find ulcers diagnosed much more often than they were even 10 years ago.

A perusal of textbook descriptions gives one the impression that the diagnosis of gastric or duodenal ulcer is a fairly simple matter, depending upon the presence of pain, vomiting, hematemesis, hyperacidity, occult blood in the stools, etc. It is true that with these symptoms one is often justified in assuming the existence of an ulcer. But much more often we see patients in whom only pain and hyperacidity, with or without vomiting or pylorospasm, lead us to question the correctness of such a diagnosis. We even frequently see or hear of patients in whom all the classical symptoms of active ulcer are present, but where at operation no such lesion is found; and in addition, where the removal of a chronically diseased appendix or of a diseased gall bladder is followed by a complete cure. It must be remembered that because at operation ulcers are not always found, their absence is not proven. They vary considerably in size and surgeons frequently experience difficulty in locating ulcers even if a half-inch in diameter if they are not indurated and are without adhesions. In some instances pin-hole ulcerations have been found at autopsy accounting for fatal hemorrhages for which no cause could be found on the operating table. Cases are also recorded where though the diagnosis seemed certain and where deaths resulted from hemorrhage, macroscopically and microscopically no ulcer could be found at autopsy.

It is because of this great difficulty in the diagnosis of gastric and duodenal ulcer that clinicians find it hard to correctly estimate the value of any treatment. A goodly number of cases undoubtedly recover without any form of treatment, if we are to rely at all upon the frequency with which healed ulcers are shown as

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